

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-105 (cancelled)

Claim 106 (Previously Presented) A method of introducing a protein in a mammal, comprising delivering to a blood vessel in the mammal a transformed vascular cell, wherein the transformed vascular cell (i) originates from the mammal or is syngeneic to the mammal, (ii) comprises an exogenous nucleic acid encoding the protein, and (iii) expresses the protein when implanted in the mammal.

Claim 107 (Previously Presented) The method of claim 106, wherein the transformed vascular cell attaches to the wall of the blood vessel in the mammal.

Claim 108 (Previously Presented) The method of claim 106, wherein the transformed vascular cell is an endothelial cell or a smooth muscle cell.

Claim 109 (Previously Presented) The method of claim 106, wherein the protein is selected from the group consisting of tissue plasminogen activator, urokinase, streptokinase, transforming growth factor alpha, transforming growth factor beta, angiogenin, tumor necrosis factor alpha, tumor necrosis factor beta, acidic fibroblast growth factor, and basic fibroblast growth factor.

Claim 110 (Previously Presented) The method of claim 106, wherein the protein induces angiogenesis.

Claim 111 (Previously Presented) The method of claim 106, wherein the protein induces revascularization.

Claim 112 (Currently Amended) The method of claim 106, wherein the protein is useful in the treatment of ~~an ischemic organ~~ vascular injury, stenosis, restenosis, atherosclerosis, thrombosis, or rethrombosis.

Claim 113 (Cancelled)

Claim 114 (Previously Presented) The method of claim 106, wherein the protein improves vascular or cerebrovascular circulation.

Claim 115 (Currently Amended) A method of treating ~~an ischemic organ a~~ vascular injury, stenosis, restenosis, atherosclerosis, thrombosis, or rethrombosis in a patient, comprising the step of site-specific instillation of transformed cells into the patient, wherein the transformed cells (i) originate from the patient or are syngeneic to the patient and (ii) are selected from the group consisting of endothelium, smooth muscle, and parenchymal cells.

Claim 116 (Previously Presented) The method of claim 115, wherein the transformed cells include an exogenous nucleic acid that encodes a protein selected from the group consisting of tissue plasminogen activator, urokinase, streptokinase, transforming growth factor alpha, transforming growth factor beta, angiogenin, tumor necrosis factor alpha, tumor necrosis factor beta, acidic fibroblast growth factor, and basic fibroblast growth factor, wherein the transformed cells generate said protein in the patient.

Claim 117 (Previously Presented) The method of claim 116, wherein the protein is secreted by the transformed cells.

Claim 118 (Previously Presented) The method of claim 116, wherein the protein has a therapeutic effect.

Claim 119 (Previously Presented) The method of claim 116, wherein the protein is an angiogenic factor.

Claim 120 (Previously Presented) The method of claim 106, wherein the protein is a gene product of a marker gene.

Claim 121 (Previously Presented) The method of claim 115, wherein the transformed cells are genetically altered *in vitro* prior to being instilled into the patient.

Claim 122 (Previously Presented) The method of claim 115, wherein the transformed cells are instilled into a body vessel within the patient.

Claim 123 (Previously Presented) The method of claim 122, wherein the body vessel is a blood vessel.

Claim 124 (Previously Presented) The method of claim 122, wherein the transformed cells are instilled intravenously.

Claim 125 (Previously Presented) The method of claim 124, wherein the transformed cells are instilled with a catheter.

Claim 126 (Previously Presented) The method of claim 125, wherein the catheter comprises a balloon.

Claim 127 (Previously Presented) The method of claim 126, wherein the balloon comprises two spaced apart inflatable members.

Claim 128 (Previously Presented) The method of claim 127, wherein the balloon further comprises an instillation port positioned between the inflatable members.

Claim 129 (Previously Presented) The method of claim 126, wherein the balloon further comprises an inflatable member near the distal end of the catheter.

Claim 130 (Previously Presented) The method of claim 129, wherein the balloon further comprises an instillation port proximal to the inflatable member.

Claim 131 (Previously Presented) The method of claim 122, wherein the transformed cells are instilled surgically.

Claim 132 (Previously Presented) The method of claim 122, wherein the transformed cells are instilled percutaneously.

Claim 133 (Previously Presented) The method of claim 122, wherein the transformed cells are instilled by high pressure instillation.

Claim 134 (Previously Presented) The method of claim 122, wherein the transformed cells are instilled by injection into the patient.

Claim 135 (Previously Presented) The method of claim 134, wherein the injection occurs in a capillary bed.

Claims 136-137 (Cancelled)

Claim 138 (Previously Presented) The method of claim 115, wherein the transformed cells are instilled into the heart.

Claim 139 (Previously Presented) The method of claim 115, wherein the transformed cells are instilled into the kidney.

Claim 140 (Previously Presented) The method of claim 115, wherein the transformed cells are instilled into the bowel.

Claim 141 (Previously Presented) The method of claim 115, wherein the transformed cells are instilled into the liver.

Claim 142 (Previously Presented) The method of claim 115, wherein the instillation occurs at an angioplasty site following an angioplasty procedure.

Claim 143 (Previously Presented) A method of introducing a protein in a mammal, comprising delivering to a blood vessel in the mammal a transformed vascular cell, wherein the transformed vascular cell (i) originates from the mammal or is syngeneic to the mammal, and (ii) comprises an exogenous nucleic acid encoding the protein.

Claim 144 (Previously Presented) The method of claim 143, wherein the transformed vascular cell expresses the protein.

Claim 145 (Previously Presented) The method of claim 143, wherein the transformed vascular cell attaches to the wall of the blood vessel.

Claim 146 (Previously Presented) The method of claim 143, wherein the transformed vascular cell is an endothelial cell or a smooth muscle cell.